Claims:

1. A method of removing amyloid deposits from a patient comprising administering to the patient amyloid fibril in an effective amount to generate an immune response that will promote the removal of *in vivo* amyloid fibrils from the patient.

2. The method of claim 1, wherein the amyloid fibril comprises an amyloid light chain polypeptide or whole light chain.

3. A vaccine or pharmaceutical composition comprising an amyloid fibril and a carrier.

4. A transgenic non-human animal that develops extensive AA amyloid deposits after administration of amyloid enhancing factor (AEF).

5. The transgenic non-human animal of claim 4, wherein the animal is a mouse.

6. A method of increasing the rate of development of amyloid deposits in a transgenic animal carrying an IL-6 gene under the control of a promoter or enhancer comprising administering to the animal an effective amount of amyloid enhancing factor (AEF), wherein the increase in rate of development of amyloid deposits is relative to a transgenic animal not administered with AEF.

7. The method of claim 6, wherein the transgenic animal is a transgenic mouse.

8. The method of claim 7, wherein the transgenic mouse develops amyloid deposits after receiving AEF.

9. A method of identifying an agent effective in preventing amyloidosis comprising administering a test agent to a young transgenic animal carrying an IL-6 gene under the control of a promoter or enhancer, determining the life span of the transgenic animal, and

comparing its life span to that of a control young transgenic animal, wherein a longer life span of the transgenic animal administered with a test agent indicates that the test agent is effective in preventing amyloidosis.

10. A method of identifying an agent effective in preventing amyloidosis comprising administering a test agent and AEF to a young transgenic animal carrying an IL-6 gene under the control of a promoter or enhancer, determining the life span of the transgenic animal, and comparing its life span to that of a control young transgenic animal, wherein a longer life span of the transgenic animal administered with the test agent indicates that the test agent is effective in preventing amyloidosis.

11. The method of claim 9 or 10, wherein the transgenic animal is a mouse.

12. A method of identifying an agent effective in treating amyloidosis comprising administering a test agent to a transgenic animal carrying an IL-6 gene under the control of a promoter or an enhancer and having amyloid deposits in its body, determining the life span of the transgenic animal, and comparing its life span to that of a control transgenic animal, wherein a longer life span of the transgenic animal administered with the test agent indicates that the test agent is effective in treating amyloidosis.

13. A method of identifying an agent effective in treating amyloidosis comprising administering AEF to a young transgenic animal carrying an IL-6 gene under the control of a promoter or enhancer, administering a test agent after development of amyloidosis, determining the life span of the transgenic animal, and comparing its life span to that of a control young transgenic animal, wherein a longer life span of the transgenic animal administered with the test agent indicates that the test agent is effective in treating amyloidosis.

14. The method of claim 12 or 13, wherein the transgenic animal is a mouse.

15. The method of any one of claims 9, 10, 12, or 13, wherein the IL-6 gene is a human IL-6 gene.

Rule 1.26 sub A1

16 ~~17~~. A method of identifying an agent effective in preventing amyloidosis comprising administering a test agent to a young transgenic animal carrying an IL-6 gene under the control of a promoter or enhancer, and detecting development of amyloid deposits by radiographic imaging of the transgenic animal, wherein an absence of amyloid deposits indicates that the test agent is effective in preventing amyloidosis.

17 ~~18~~. A method of identifying an agent effective in preventing amyloidosis comprising administering a test agent and AEF to a young transgenic animal carrying an IL-6 gene under the control of a promoter or enhancer, and detecting development of amyloid deposits by radiographic imaging of the transgenic animal, wherein an absence of amyloid deposits indicates that the test agent is effective in preventing amyloidosis.

18 ~~19~~. The method of claim 17 or 18, wherein the transgenic animal is a mouse.

~~20~~. The method of claim 17 or 18, wherein radiographic imaging is performed via MRI, CT, or SPECT scan.

20 ~~21~~. A method of identifying an agent effective in treating amyloidosis comprising administering a test agent to a transgenic animal carrying an IL-6 gene under the control of a promoter or enhancer and having amyloid deposits in its body, detecting amyloid deposits by radiographic imaging of the transgenic animal, wherein a decrease or a constant level of amyloid deposits in the transgenic animal as compared to a control animal indicates that the test agent is effective in treating amyloidosis.

21 ~~22~~. A method of identifying an agent effective in treating amyloidosis comprising administering AEF to a young transgenic animal carrying an IL-6 gene under the control of a promoter or enhancer, administering a test agent after development of amyloidosis, and detecting development of amyloid deposits by radiographic imaging of the transgenic

animal, wherein a decrease or constant level of amyloid deposits in the transgenic animal as compared to a control animal indicates that the test agent is effective in treating amyloidosis.

23. The method of claim 21 or 22, wherein the transgenic animal is a mouse.

24. The method of claim 21 or 22, wherein radiographic imaging is performed via MRI, CT, or SPECT scan

25. The method of any one of claims 17, 18, 21, or 22, wherein the IL-6 gene is a human IL-6 gene.

26. The method of any one of claims 9, 10, 12, 13, 17, 18, 21, or 22, wherein the promoter is a metallothionein-I promoter.

27. The method of any one of claims 9, 10, 12, 13, 17, 18, 21, or 22, wherein the enhancer is an Eμ enhancer.

28. A method of identifying an agent that inhibits fibrillogenesis of a polypeptide comprising:

a) incubating a test agent with a polypeptide known to form fibrils and ThT; and

b) measuring the fluorescence intensity as a function of time to determine whether the agent inhibits fibrillogenesis of the polypeptide.

29. A method of determining whether a compound is fibrillogenic comprising:

a) incubating the compound with ThT; and

b) measuring fluorescence intensity as a function of time of to determine whether the compound is fibrillogenic.

30. A method of identifying the chemical nature of proteins in amyloid deposits comprising:

a) extracting the proteins from ultra-thin sections of formalin fixed, paraffin-embedded tissue biopsy specimens;

b) isolating the proteins; and

c) determining the amino acid sequence of each of the proteins.

30

31. The method of any one of claims 9, 10, 13, 17, 18, or 22, wherein the transgenic animal is six week old.

31

32. The method of any one of claims 9, 10, 12, 13, 17, 18, 21, or 22, wherein the amyloidosis is AA amyloidosis.